

19



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



11 Publication number: **0 493 373 A3**

12

### EUROPEAN PATENT APPLICATION

21 Application number: **92105203.1**

51 Int. Cl.<sup>5</sup>: **C23C 26/00, C23C 2/28,  
B01D 53/36**

22 Date of filing: **25.11.88**

30 Priority: **30.11.87 JP 299711/87  
06.07.88 JP 166958/88  
06.07.88 JP 166959/88  
06.09.88 JP 221279/88**

43 Date of publication of application:  
**01.07.92 Bulletin 92/27**

60 Publication number of the earlier application in  
accordance with Art.76 EPC: **0 318 864**

84 Designated Contracting States:  
**DE FR GB IT SE**

88 Date of deferred publication of the search report:  
**26.01.94 Bulletin 94/04**

71 Applicant: **NIPPON YAKIN KOGYO CO., LTD.  
No. 15-1, Kyobashi 1-chome  
Chuo-ku Tokyo(JP)**

72 Inventor: **Ikegami, Yuji, c/o Technical  
Laboratory  
Nippon Yakin Kogyo Co., Ltd.,  
4-2, Kojima-cho  
Kawasaki-ku, Kawasaki-shi,  
Kanagawa-ken(JP)  
Inventor: Tachino, Noboru, c/o Technical  
Laboratory  
Nippon Yakin Kogyo Co., Ltd.,  
4-2, Kojima-cho  
Kawasaki-ku, Kawasaki-shi,  
Kanagawa-ken(JP)  
Inventor: Sasayama, Shinichi, c/o Technical  
Laboratory  
Nippon Yakin Kogyo Co., Ltd.,  
4-2, Kojima-cho  
Kawasaki-ku, Kawasaki-shi,  
Kanagawa-ken(JP)  
Inventor: Kamiya, Takeshi, c/o Technical  
Laboratory  
Nippon Yakin Kogyo Co., Ltd.,  
4-2, Kojima-cho  
Kawasaki-ku, Kawasaki-shi,  
Kanagawa-ken(JP)**

74 Representative: **Kraus, Walter, Dr. et al  
Patentanwälte Kraus, Weisert & Partner  
Thomas-Wimmer-Ring 15  
D-80539 München (DE)**

54 **A production process of ferrite stainless steel covered with oxide whisker.**

57 This invention concerns a production process of ferrite stainless steel covered with oxide whisker suitable for metal catalyst supports in automobile's exhaust gas converters, which comprises plating a ferrite stainless steel with aluminium, diffusing the aluminium into the stainless steel by heating in vacuum or in a non-oxidizing gas so that the surface of

the ferrite stainless steel turns into an aluminium-enriched ferrite phase, and allowing oxide whisker to grow there by heating in the air.

EP 0 493 373 A3



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.4)
X	EP-A-0 201 910 (INLAND STEEL COMPANY) * page 17, line 24 - page 18, line 13; claims 13,21,22 *	1-3	C23C26/00 C23C2/28 B01D53/36
A	US-A-4 318 828 (LLOYD R. CHAPMAN) * column 5, line 45 - line 63 * * column 7, line 1-9; claim 1 *	1-3	
A	EP-A-0 184 311 (GENERAL MOTORS CORPORATION)		
A	GB-A-514 371 (THE BRITISH THOMSON-HOUSTON COMPANY)		
			TECHNICAL FIELDS SEARCHED (Int.Cl.4)
			C23C B01D
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		2 December 1993	Elsen, D
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone		T : theory or principle underlying the invention	
Y : particularly relevant if combined with another document of the same category		E : earlier patent document, but published on, or after the filing date	
A : technological background		D : document cited in the application	
O : non-written disclosure		L : document cited for other reasons	
P : intermediate document		* : member of the same patent family, corresponding document	